

Climate KIC Summer School 2010

Entrepreneurial Journey

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Agenda

■ My personal entrepreneurial journey

Ideas vs business opportunities

Ideas and market success – how many ideas make it to the customer?

How to start with an innovative idea?

Misunderstandings on innovation, ideas, ...

Case - entrepreneurial journey of Green Wing

Wrap up

A New Entrepreneurial Culture



Entrepreneurship is a key cornerstone of our economic prosperity and provides solutions for significant social challenges.

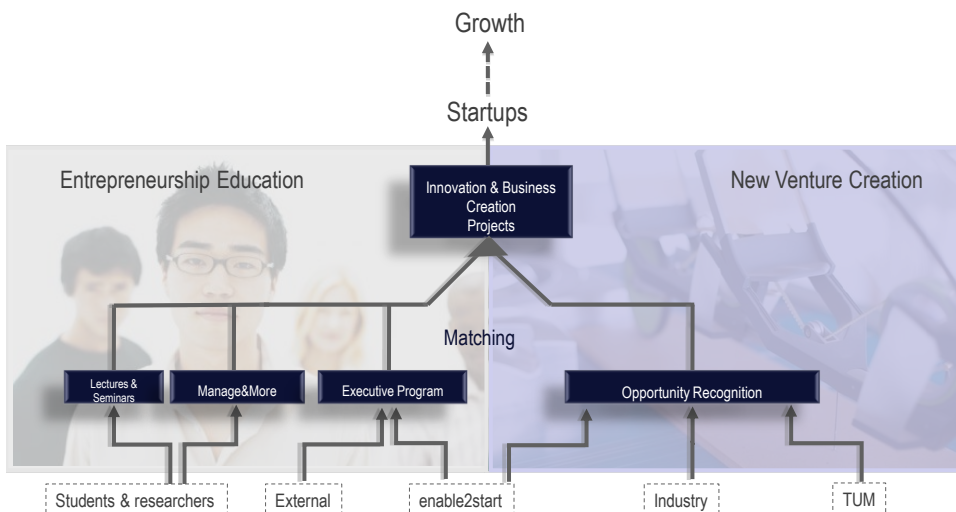
We spark the enthusiasm of talented students for the entrepreneurial world, and we equip them with the methods and tools to drive their innovation and start-up projects, to establish growth-oriented businesses and to generate value.

Founded 2002, 40 employees
Associated Institute of Technische Universität München

Latest prize:

2008: EU survey „Entrepreneurship in higher education“: declared UnternehmerTUM as good practice in Europe.

UnternehmerTUM Process



Results



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Startup teams



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About me

UnternehmerTUM GmbH

Head of Entrepreneurship Education (since 2010)

Lecturer "Seminars - Business Planning" (since 2004) and Executive MBA

Author of students Handbook "Schlüsselkompetenzen" (soft skills)

Entrepreneurship and Industry Experience

- Financing and coaching of Start-up's (since 1998): Mister Spex, booksfree.com, ciando.com, (jobs.de), friendlyway, 4voice, (Nutrion)
- Judging panel at MBPW (2000 – 2004)
- Co-Founder buecher.de AG (1997 – 2004) and AUTODATA (1990)
- Publishing Wer-gehört-zu-wem (1996 - 2000)
- Corporate VC (1991-1996) and VC (1989 – 1990)
- Banking (1986 – 1988)



Academic Education

Dipl.-Kfm. / Business Administration at University of Cologne

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Entrepreneurship is about opportunities and actors

aim: **value creation**

Offer customers products and services with added value and earn money in the process

Unternehmertum = Entrepreneurship

„Entrepreneurship is the pursuit of opportunities

beyond the resources one currently has under control“ (Prof. Howard Stevenson, Harvard University)

„Entrepreneurship is the confluence of an opportunity and an actor who pursues it“

(David Charron, University of California, Berkeley)

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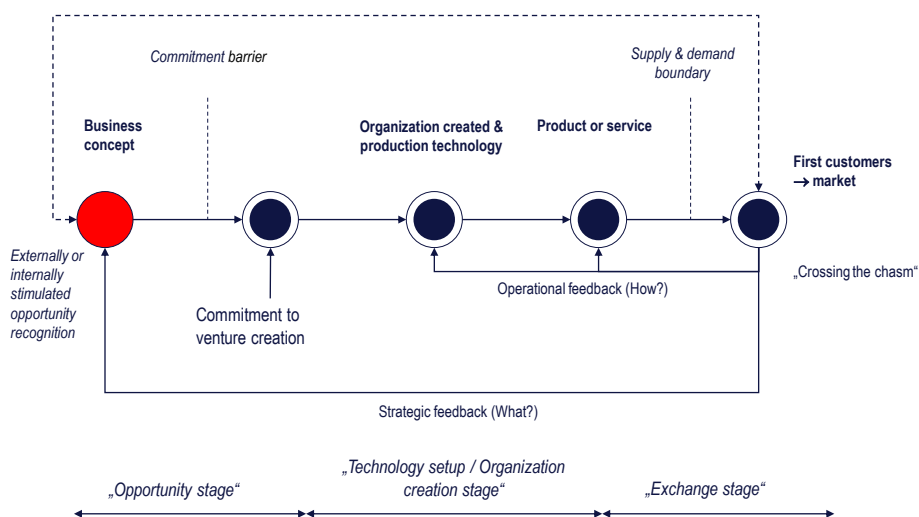
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How it usually starts



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It is not difficult to find business ideas...

... it is difficult to decide, whether the idea is worthwhile to invest time and money to pursue it!



Own examples

AUTO DATA (1990) – database for car dealers



Wer gehört zu wem (1993):
database for analysts, seeking for share
ownership ratio

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Are you aware?



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Are you aware?



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Finding ideas ≠ developing opportunities

The entrepreneurial process is NOT about...

Finding a business idea.

≠

It is about ...

Developing your business opportunity.

“idea” vs. “opportunity”
 “finding” vs. “developing”
 “a” vs. “your”

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Ideas are fine – opportunities are better!

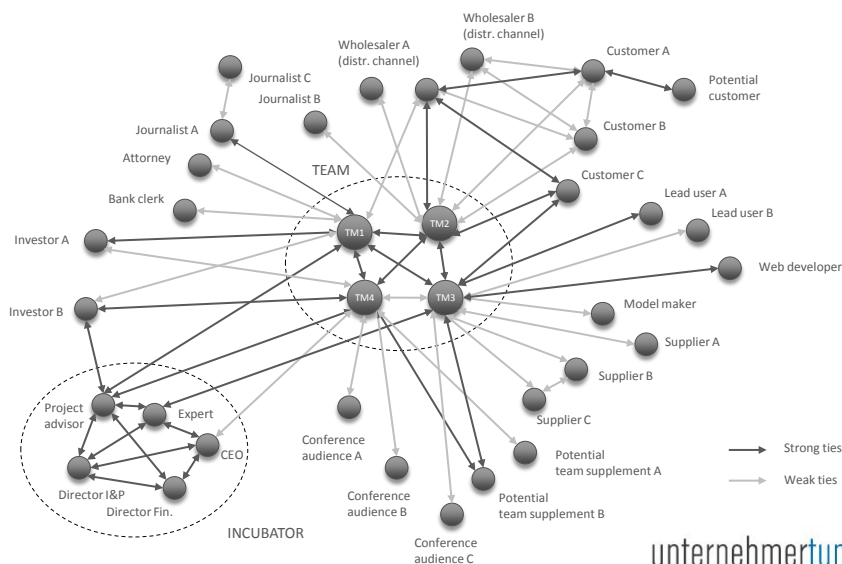


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- 1991 started as a publisher for CD-ROM
- annual visit of Frankfurter Buchmesse (book fair)
- 1994 – the GORILLA
- first discussions about business models
- various domains 1996
- 1997 divorce from team member; split of company
- new team build mid 1997
- online end 1997
- 1998 first two business angels on board, but no VC money
- 1998 amazon.de entered german market via an acquisition
- IPO 1999 - since then No.2 in the german market
- 1999 acquisition of ZVAB - database for antiquarian book sellers and seekers
- assets sold in 2001 to Weltbild (*luckily without ZVAB*)

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Opportunities „happen“ in (complex) networks



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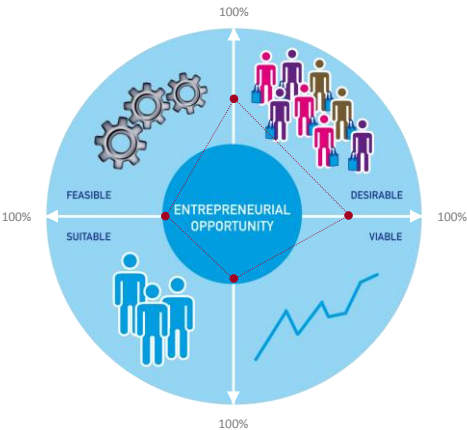
Sources and types of opportunities

Sources of opportunities	Entrepreneurs	Non-entrepreneurs
Prior work	67 (58,3%)	13 (48,2%)
Prior employment	36	6
Prior consulting work	11	4
Prior business	20	2
Network	25 (21,7%)	8 (29,6%)
Social contact	7	6
Business contact	18	2
Thinking by analogy	13 (11,3%)	6 (22,2%)
Partner	10 (8,7%)	-

Types of opportunities	Entrepreneurs	Non-entrepreneurs
Niche expansion/ underserved niche	29 (25,2%)	7 (29,2%)
Customer need	34 (29,6%)	6 (25,0%)
Own firm's need	6 (5,2%)	1 (4,2%)
Better technology	46 (40,0%)	10 (41,7%)

Source: Timmons/Spinelli (2007), p. 14

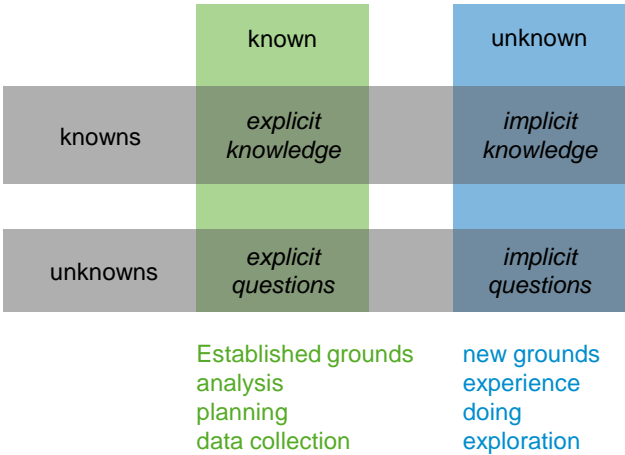
Opportunity wheel



- **Desirable:** Creates or adds significant and perceivable value to a customer or end-user
- **Viable:** Has a robust market (\$50 million, 20% growth rate), gross margins (40+ %), and money-making characteristics (i.e. strong/early FCF, 10-15% profit a.t.)
- **Feasible:** Has a manageable technical complexity and a favorable product/service architecture for manufacturing
- **Suitable:** Fits to the strategic orientation and the prevalent capabilities of the organization

If a business idea meets all these requirements, the “window of opportunity” is wide open!

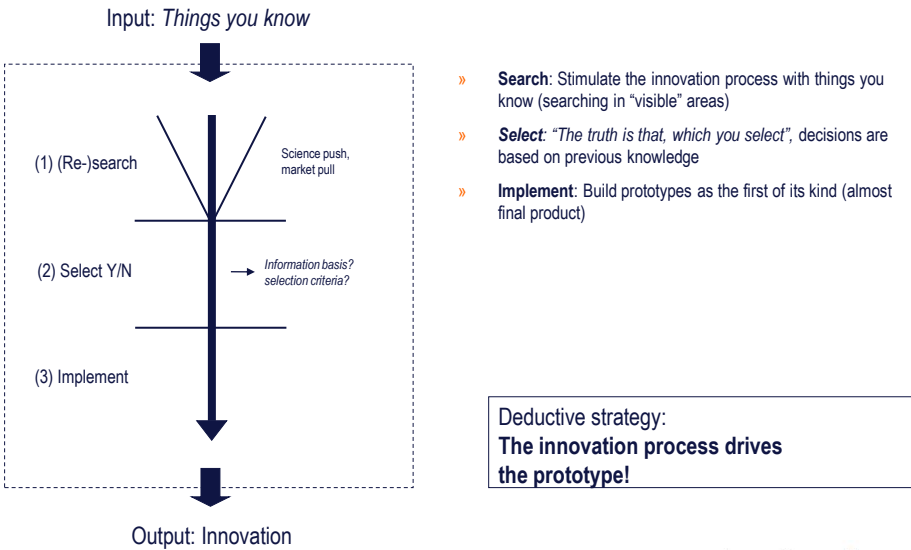
Do you know enough?



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Innovation process based on “knowns”



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My personal entrepreneurial journey

Ideas vs business opportunities

Ideas and market success – how many ideas make it to the customer?

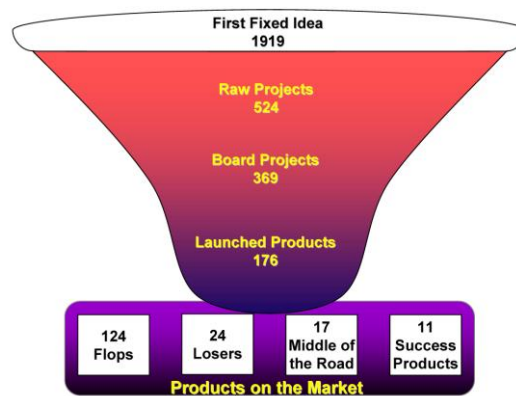
How to start with an innovative idea?

Misunderstandings on innovation, ideas, ...

Case - entrepreneurial journey of Green Wing

Wrap up

How many ideas make it to the customers?



Source: Berth, R. (1993): The Return of Innovation, Düsseldorf, p. 15.

» Why are there so many ideas and so few innovations?

Innovations have hard times, because ...

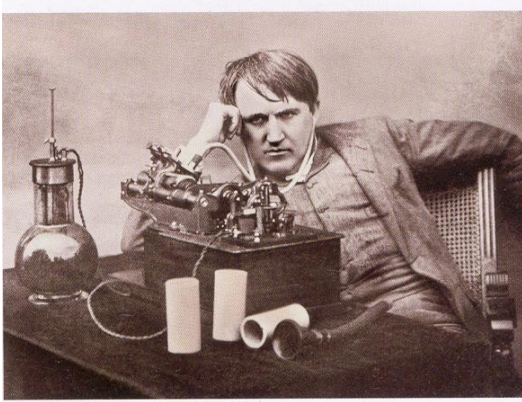
1. Tendency to look for solutions in known areas (*Local search bias*)
2. Focus on technology and/ or the solution
3. Customers are often cold-sholdered (*stickyness of information*)
4. Customers are often over-challenged with „new things“

1. Local search bias

„If I had asked coachmen,
what they wanted,
they would have said faster horses“ Henry Ford



2. focus on technology



Thomas Alva Edison und sein Phonograph 1888



Victor V Disc Phonograph
(Gramophone) ca. 1907

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3. Often customer are cold-shouldered ...

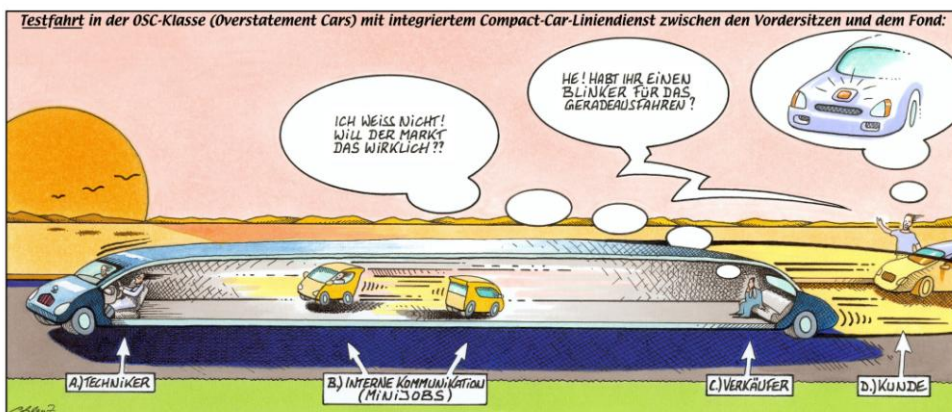
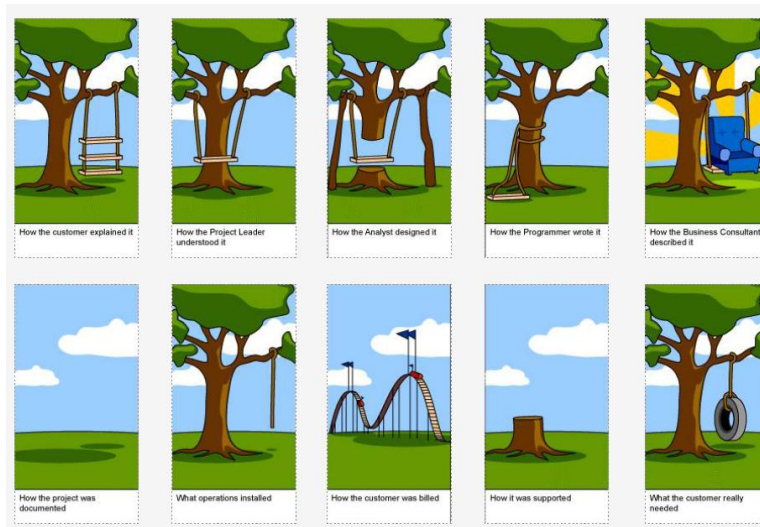


Illustration von Bernd Pohlenz

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Do we understand each other?



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4. Customers are over-challenged with „new things“



Illustration von Elliot Golden

- because customers rank the benefit of a product they are familiar with irrational high
- because customers often act different from expressions in interviews ...
- because customers do not articulate their actual needs ...
- because customers want „to touch“ new products...
- because customers tend to accept those practical ideas, where they must not change considerably their behaviour...
- because customers prefer functionality, tangibility and suitability for daily use rather than technology.

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How will innovations make it ?



„driven“ through the customer problem!

- ✓ Customers/users are experts for problems!
- ✓ Observe, study and listen actively to customers and users!
- ✓ Watch out: „That needs to be done one day“, „This mistake occurs constantly“, „Nowbody listens to me, but if I would be in charge, I would...“
- ✓ Understand customer problems from different view points:
 - a) customer perception and b) technology!

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How to start...?

Einstein: „If I had 20 days to solve a problem, I would take 19 days to define it“

1.

customer problem:

- » detect,
- » observe and
- » understand

2.

practical idea:

- » surprising,
- » relevant und
- » effective

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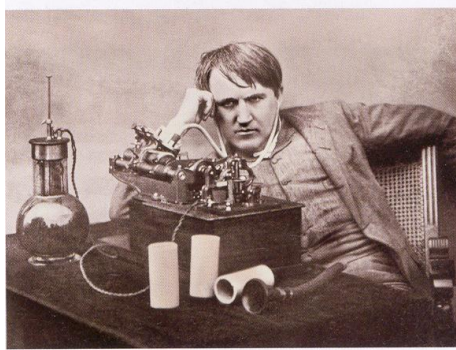
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Wrap up

1. An innovation is the invention of a new product / service



Thomas Alva Edison und sein Phonograph

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2. Innovations originate from R & D labs



Alto Computer from XEROX, 1973

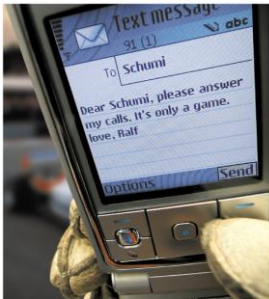


Macintosh from Apple, 1984

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3. The probability of success of an innovation is planable



SMS turnover 2007
worldwide 60 bil \$

(expected in 2004:
for 2007 40 bil \$)

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4. An innovation is always something new



Doc Morris - Europe's biggest mail-order pharmacy

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5. An innovation is always based on a customer need



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6. The most important thing with an innovation is the idea



Steven Sasson from Kodak, inventor of the Digital Camera



First working prototype 1975

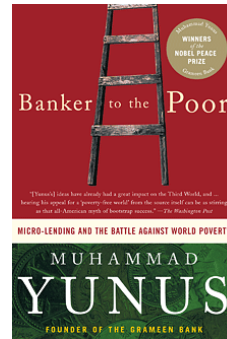
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7. An innovation is always a high-tec product



1 € Chip



Micro lending

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Misunderstandings about „ideas“

- 1 » A business idea has to amaze your family and your friends..
- 2 » One has ideas or he has not.
- 3 » The painful, iterative process of developing, refusal and adapting of the business idea is somewhat narrow-minded. Great ideas are born in a creative way.
- 4 » Products are better than services
- 5 » Good business ideas are often spectacular in their genesis!

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Starting point was a customer problem

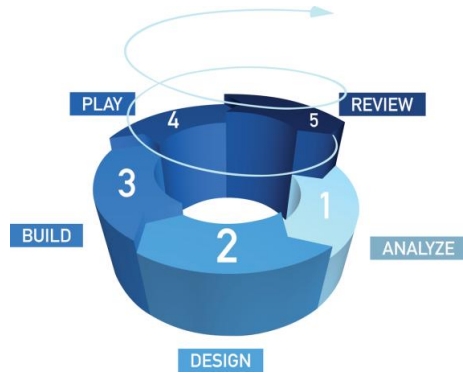
„Since years I am a subscriber of „Neue Energie“.

„When I read an article about SKY SAILS, I asked myself: would it be possible to convert the power of a kite to electrical energy?“

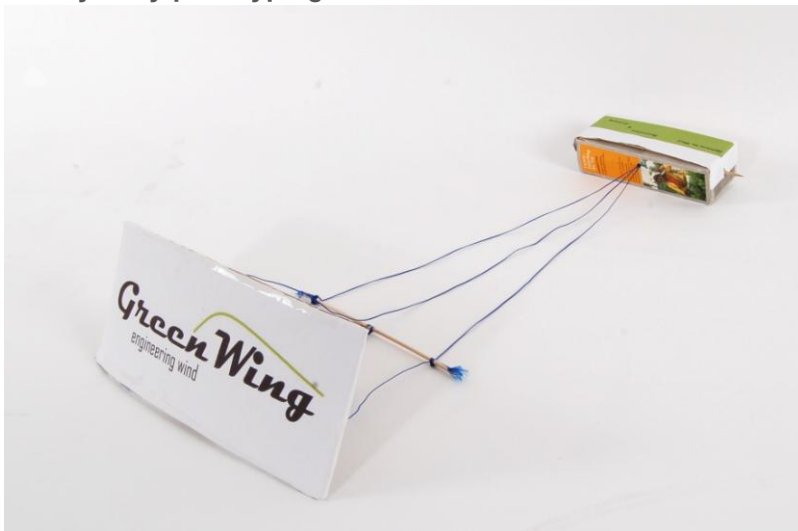
(Simon Bolten, one of my students in my Businessplan Seminar in WS 2008/09)



They followed our iterative innovation process, prototyped and came out with a first rough business plan



Ok – very early prototyping



Cost was down 100€



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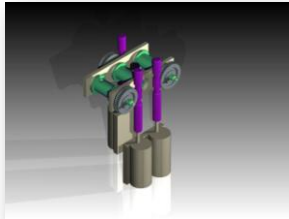
Most stuff from e-bay and waste yard



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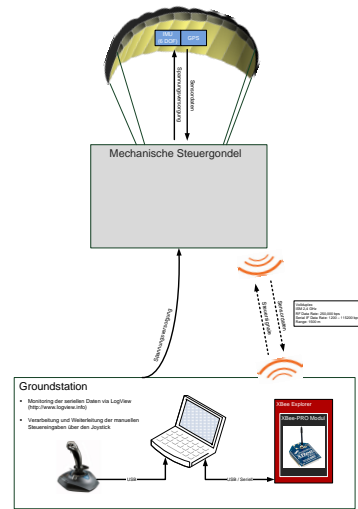
Construction and visualization



3-winses-system



2-winses-system



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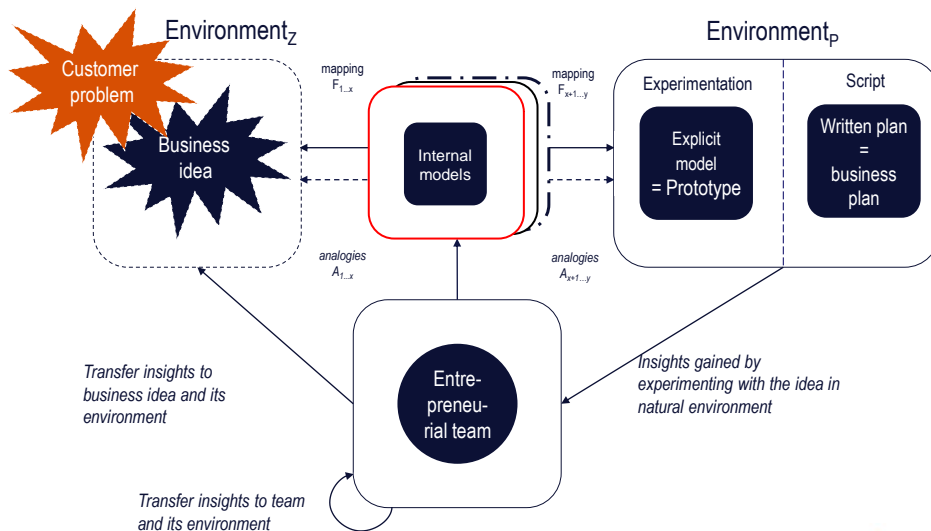
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Wrap up

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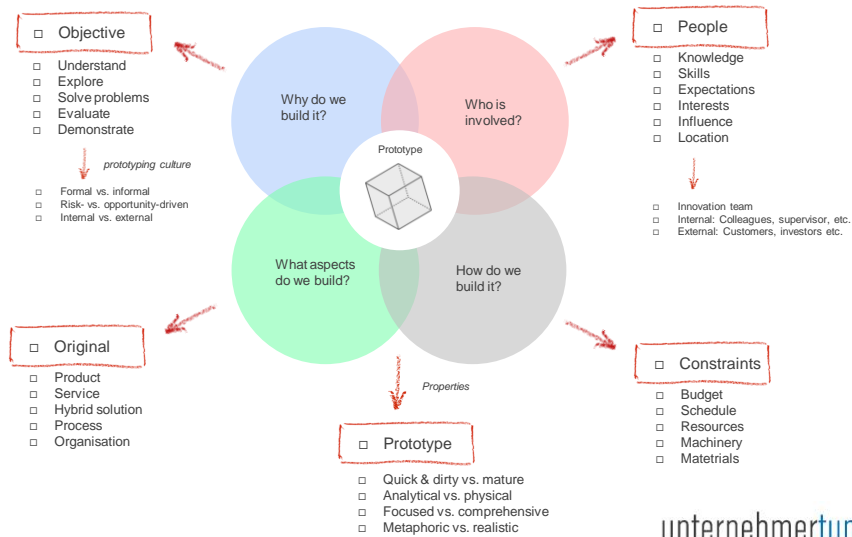
Align idea, prototype, business plan and team



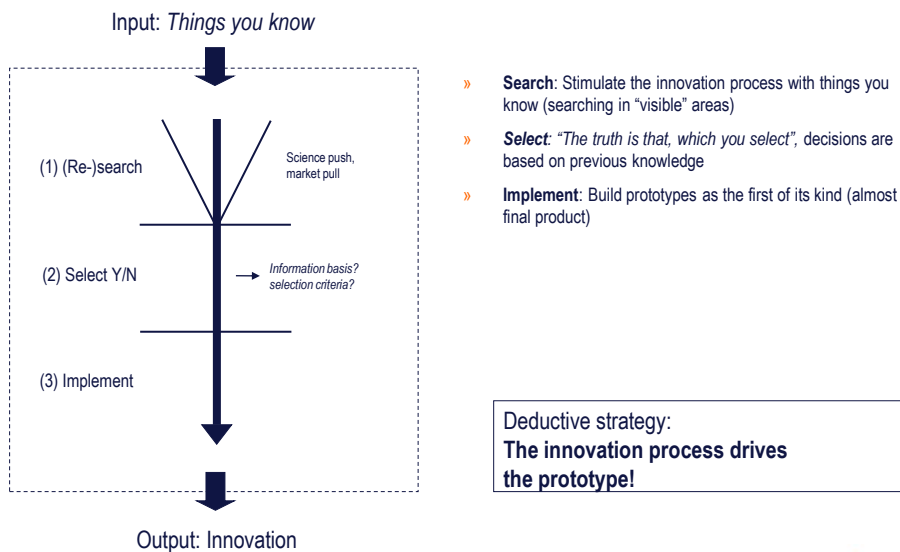
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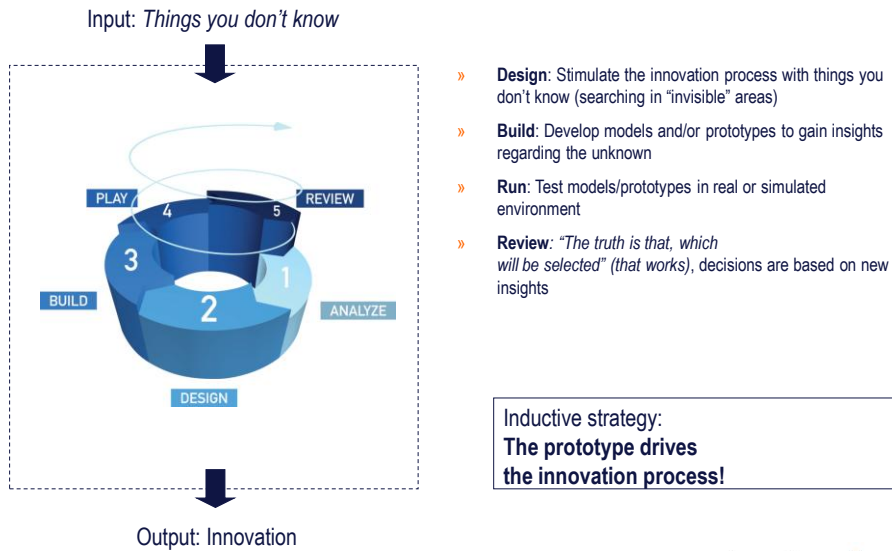
Prototyping: Why, what, who and how?



Innovation process based on “knowns”



Innovation process based on “unknowns”



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Questions and discussion

Thank you! ;-)

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Contact

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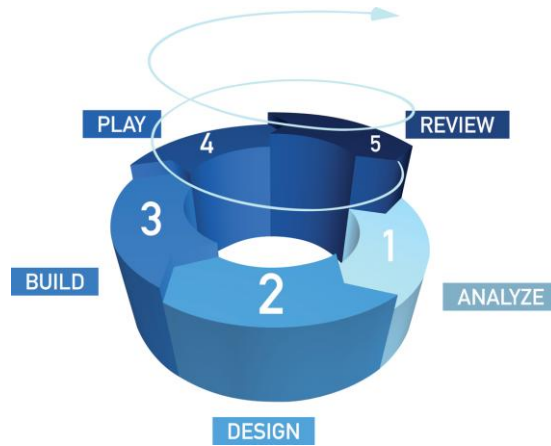
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Partner



Back up

Iterative innovation process of UnternehmerTUM



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Analyse

Holistic and contextual analysis of customers, markets, and technology



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Objective

Common understanding of stakeholders, customer needs, products, services, processes, technologies, and markets

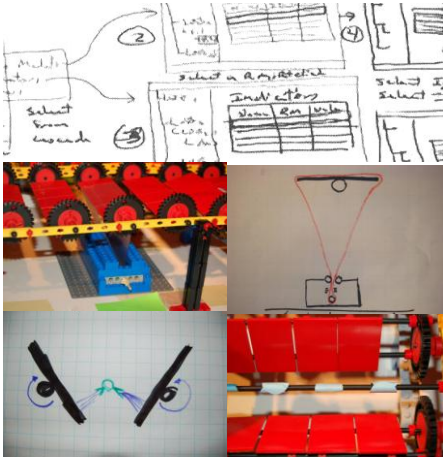
Methods

- » Stakeholder analysis
- » Customer observation and empathy
- » Field interviews
- » Market screening
- » Technology screening
- » Process analysis
- » Competitors landscape
- » Do it yourself

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Design

Development and visualization of business ideas and concepts



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Objective

Developing and visualizing business ideas and concepts that hold promise of addressing an identified customer need

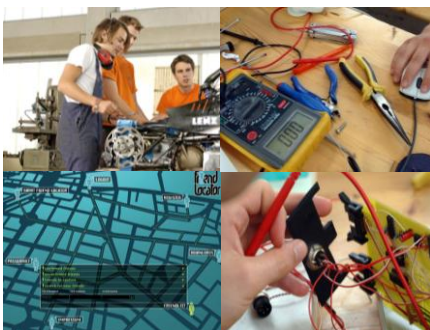
Methods

- » Paper prototyping
- » 3R prototyping
- » Creativity techniques (i.e. brainstorming)
- » Storyboarding /-telling
- » Process modeling
- » Business modeling
- » Scenario analysis

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Build

Transformation of selected concepts into prototypes, models and simulations



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Objective

Implementing prototypes, models, and simulations to stimulate interactions between stakeholders, get early user feedback and gain insights regarding uncertainties

Methods

- » CAD modeling
- » 3D printing
- » CNC molding
- » Clay modeling
- » Reverse engineering
- » Software frameworks

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Play and Review

Test of prototypes in real environment and reflection of insights for next iterations



Objective

Gaining valid and emotional feedback in the field to turn uncertainties into manageable risks and adapting team structures and processes, business concept and resources to achieve innovative forms of competitive advantage

Methods

- » Customer observation and empathy
- » Field interviews
- » Functional tests
- » Storytelling
- » Role playing
- » Do it your self
- » Project retrospective techniques

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